



## Hitachi Rail

Newton Aycliffe, UK

Maximising energy efficiency with  
industry-leading Honey M  
technology

**1 MW**  
System

**851.3 MWh**  
Annual Energy Output

**3,772**  
modules

Commercial  
rooftop PV  
system

*Rooftop installations represent a significant opportunity for businesses to increase their energy efficiency. During the installations, interaction between customers, installers, like us, and manufacturers is key to ensure a correct management and that the solution ultimately designed and implemented will produce the maximum energy yield. Working with Trina Solar and Hitachi Rail was a good example of collaboration between all parties."*

Jonathan Bates  
Managing Director of Photon Energy

As a socially responsible company, Hitachi Rail, the Japanese rail manufacturer, sought an efficient way to reduce energy costs and drive down their carbon emissions for their UK operations. The company identified solar PV as a viable way to achieve these aims and turned to Photon Energy to design and implement a solar PV solution on their redundant rooftop space.

Having worked with Trina Solar extensively in the past, Photon Energy recommended using solar PV panels from this leading manufacturer. Trina Solar worked alongside



Photon Energy to complete the commercial rooftop installation at the Hitachi Rail site in Newton Aycliffe where 3,772 Honey M 265W modules were deployed. Initially, the project was specified to be completed with 250W modules; however with the decision to install Trina Solar's higher performing monocrystalline Honey M 265W modules, it was calculated that a substantial Balance of System (BOS) saving of 100kW could be made, making the installation economically viable.

The 1MW rooftop installation is a high performance commercial PV solution with 100% self consumption on site. As a result, Hitachi Rail's carbon footprint has been significantly reduced. The project has improved energy efficiency and decreased costs as anticipated, while providing significant BOS savings and generating more than 850MWh of clean energy per year.

## Hitachi Rail Project

### LOCATION

Newton Aycliffe, UK

### SYSTEM TYPE

Commercial PV Rooftop

### SYSTEM SIZE

1MW

### PRODUCT

TSM-DC05A.08 265W

### NUMBER OF MODULES

3,772

### ANNUAL ENERGY OUTPUT

850MWh

### COMPLETION DATE

January 2015

## Trina Solar TSM-DC05A.08: The Honey M Series

With 260 to 275 W output our Honey M products meet all the requirements of a rooftop installation. Trina Solar has already set two performance world records with the innovative cell technology that is employed. In diffused light in particular Honey M modules generate higher yields than others. In addition they withstand high snow and wind loads. Our testing procedures and quality controls exceed the highest international standards. Optionally Honey M is also available with the integrated Trinasmart output optimiser, which monitors and controls the installation and increases system performance by up to 20 %. This attractive module series has consistent cell colouring and a black frame, and boasts better performance under low light conditions.